

TYPE SPECIMENS OF FRESHWATER OSTRACODA
DESCRIBED BY NORMA C. FURTOS IN THE
COLLECTIONS OF THE NATIONAL MUSEUM OF
NATURAL HISTORY, SMITHSONIAN INSTITUTION

Elizabeth Harrison

Abstract.—Type specimens of freshwater podocopid Ostracoda described by Norma C. Furtos in the collections of the National Museum of Natural History, Smithsonian Institution, are listed; these include 17 genera, 60 species, and 4 varieties. One species was collected in the Marquesas Islands, 14 in Mexico (cenotes of Yucatan and vicinity), and 45 in the United States (Florida, Massachusetts, North Carolina, and Ohio). USNM catalog number, type status, method of preservation, and locality data are given, together with references containing the original descriptions.

Norma C. Furtos described many new species and several new varieties of ostracods in six publications (Furtos 1933-1938). Much of the type material mentioned in her publications is deposited in the Division of Crustacea, National Museum of Natural History, Smithsonian Institution, U.S.A. The following is a listing of these type specimens with catalog number, type status, locality data, and method of preservation. Although the group has undergone some revisions (see Tressler 1959), the original names are used. All references containing the original descriptions are given. A survey of the literature has not been made to determine whether later workers designated lectotypes for any of Furtos (1933) syntypes. The writer was unable to locate specimens of *Candona ulignosa* Furtos, 1933 and *C. stagnalis* Sars, 1890 var. *longisetosa* n. var. Furtos, 1933 in the collections of the National Museum of Natural History. (A+S = alcohol + slide, ALC = alcohol only, and SLI = slide only.)

Candocypria osburni Furtos, 1933. USNM 67866, 17 Syntypes, A+S, United States: Ohio, Newark, Cold Spring Run.

Candona annae Mehes, 1913 var. *septentrionalis* Furtos, 1935. USNM 71421, Holotype, SLI, United States: Massachusetts, Woods Hole, in field drainage ditch.

Candona caudata Kaufman var. *ciliata* Furtos, 1935. USNM 71420, Holotype, A+S, United States: Massachusetts, in marsh between Barnstable and East Sandwich.

Candona decora Furtos, 1933. USNM 67867, 10 Syntypes, A+S, United States: Ohio, Marengo, temporary pond.

Candona distincta Furtos, 1933. USNM 67868, 7 Syntypes, A+S, United States: Ohio, canal south of Columbus.

Candona elliptica Furtos, 1933. USNM 67869, 2 Syntypes, SLI, United States: Ohio, Lake Erie, Lakeside, East Harbor. USNM 67938, 4 Syntypes, ALC, United States: Ohio, Lake Erie, between South Bass and Rattlesnake Island.

Candona eriensis Furtos, 1933. USNM 67870, 5 Syntypes, A+S, United States: Ohio, Lake Erie, between South Bass and Rattlesnake Island.

Candona exilis Furtos, 1933. USNM 67871, 1 Syntype, SLI, United States: Ohio, Columbus, temporary pond.

Candona inopinata Furtos, 1933, USNM

- 67872, 1 Syntype, SLI, United States: Ohio, Mount Vernon.
- Candona intermedia* Furtos, 1933. USNM 67873, 6 Syntypes, A+S, United States: Ohio, Newark.
- Candona ohioensis* Furtos, 1933. USNM 67874, 5 Syntypes, A+S, United States: Ohio, Bass Lake.
- Candona punctata* Furtos, 1933. USNM 67875, 4 Syntypes, A+S, United States: Ohio, Bass Lake.
- Candona scopulosa* Furtos, 1933. USNM 67876, 5 Syntypes, A+S, United States: Ohio, Lake Erie, Starve Island.
- Candona truncata* Furtos, 1933. USNM 67877, 7 Syntypes, A+S, United States: Ohio, Medina, south of temporary pond.
- Candonocypris pugionis* Furtos, 1936b. USNM 71382, Holotype, A+S, United States: Florida, near Fruitville.
- Cyclocypris ampla* Furtos, 1933. USNM 67878, 6 Syntypes, A+S, United States: Ohio, Castlia, Blue Hole Stream.
- Cyclocypris cruciata* Furtos, 1935. USNM 71416, Holotype, A+S. USNM 71417, 3 Paratypes, A+S, United States: Massachusetts, Marston's Mill Pond, near Hyannis.
- Cyclocypris sharpei* Furtos, 1933. USNM 67879, 2 Syntypes, SLI, United States: Ohio, Bass Lake.
- Cypretta bilicis* Furtos, 1936b. USNM 71377, Holotype, ALC, USNM 71378. Paratype, SLI, United States: Florida, 4 miles from Miakka on road to Fruitville.
- Cypretta brevisaepta* Furtos, 1934. USNM 68157, TYPE (Holotype), A+S. USNM 139290, Paratype, ALC. USNM 68158, Paratype, A+S. USNM 68159, 13 Paratypes, ALC, United States: Florida, Buckingham, ½ mile north of railroad station.
- Cypretta brevisaepta brevisaepta* Furtos, 1936b. The material listed above was referred to this variety when Furtos established the variety given below.
- Cypretta brevisaepta* var. *sarta* Furtos, 1936b. USNM 71395, Holotype, ALC, United States: Florida, Fort Myers, 3 miles north of railroad station.
- Cypretta intonsa* Furtos, 1936b. USNM 71380, Holotype, A+S, United States: Florida, 2 miles west of Kissimmee River. USNM 71381, 40 Paratypes, ALC, United States: Florida, 4 miles north of Kissimmee River.
- Cypretta nigra* Furtos, 1936b. USNM 71379, Holotype, A+S, United States: Florida, 9 miles from Miakka, on road to Fruitville.
- Cypretta nukuhivana* Furtos, 1934. USNM 68067, 50 Paratypes, A+S, Marquesas Islands: Loovii Pond, Nukuhiva, Vaehakameaua.
- Cypria (Cypria) palustera* Furtos, 1935. USNM 71409, Holotype, A+S. USNM 71410, 17 Paratypes, A+S, United States: Massachusetts, in marsh between Barnstable and East Sandwich.
- Cypria (Cypria) pseudocrenulata* Furtos, 1936b. USNM 71386, Holotype + Paratype, A+S. USNM 71387, Paratype, SLI. USNM 71388, 11 Paratypes, ALC, United States: Florida, 2 miles from Dunnedin on road to Tarpon.
- Cypria (Physocypris) gibbera* Furtos, 1936b. USNM 71391, Holotype, A+S, United States: Florida, 1½ miles to the east of Elfer's Pool. USNM 71392, Paratype, A+S and USNM 71393, 6 Paratypes, ALC, United States: Florida, 1¼ miles to the east of Elfer's Pool.
- Cypria (Physocypris) globula* Furtos, 1933. USNM 67880, 7 Syntypes, A+S, United States: Ohio, Bass Lake.
- Cypria (Physocypris) inflata* Furtos, 1933. USNM 67881, 6 Syntypes, A+S, United States: Ohio, Lakeside, East Harbor.
- Cypria (Physocypris) posterotuberculata* Furtos, 1935. USNM 71412, Holotype A+S, USNM 71413, 5 Paratypes, ALC, United States: Massachusetts, Falmouth, Palmer's Pond.
- Cypria (Physocypris) xanabanica* Furtos, 1936a. USNM 67977, Holotype A+S,

- USNM 67978. Paratype, A+S. USNM 67979, 6 Paratypes, ALC, Mexico: Chichen-Itza, Xanaba Ii Cenote.
- Cypricerus mollis* Furtos, 1936b. USNM 71385, Holotype, A+S (soft parts only), United States: Florida, Miami, 40 miles W of Miami (wayside pool on Tamiami highway).
- Cypridopsis mexicana* Furtos, 1938. USNM 72455, Holotype + 8 Paratypes, ALC, Mexico, Libre Union, Yunchen Cave.
- Cypridopsis okeechobei* Furtos, 1936b. USNM 71375, Holotype, A+S. USNM 71376, 2 Paratypes, A+S. USNM 71394, 3 Paratypes, ALC, United States: Florida, Lake Okeechobee.
- Cypridopsis (Cypridopsis) inaudita* Furtos, 1936a. USNM 67955, Holotype, A+S. USNM 67956, Paratype, A+S, Mexico: Campeche, Champoton. USNM 67957, 7 Paratypes, ALC, Mexico: Campeche, Champoton, in cistern.
- Cypridopsis (Cypridopsis) niagranensis* Furtos, 1936a. USNM 67958, Holotype, A+S, Mexico: Yucatan, Merida, Niagra Cenote.
- Cypridopsis (Cypridopsis) pustulosa* Furtos, 1933. USNM 67886, 5 Syntypes, A+S, United States: Ohio, Springfield.
- Cypridopsis (Cypridopsis) rhomboidea* Furtos, 1936a. USNM 67959, Holotype, A+S, Mexico: Yucatan, Piste, in pond.
- Cypridopsis (Cypridopsis) yucatanensis* Furtos, 1936a. USNM 67961, Holotype, A+S. USNM 67962, 2 Paratypes, ALC, Mexico: Valladolid, Xix Cenote. USNM 67960, Paratype, SLI, Mexico: Yucatan, Chichen-Itza, Ixil Cenote.
- Cypridopsis (Potamocypris) comosa* Furtos, 1933. USNM 67885, 2 Syntypes, SLI. USNM 67940, 5 Syntypes, ALC, United States: Ohio, Lake Erie, Lakeside, East Harbor.
- Cypridopsis (Potamocypris) elegantula* Furtos, 1933. USNM 67887, 3 Syntypes, A+S, United States: Ohio, North Bass Island, Hollyhock Pond.
- Cypridopsis (Potamocypris) smaragdina* (Vavra, 1891) var. *compressa* Furtos, 1933. USNM 67933, 100 Syntypes, A+S, United States: Ohio, Starve Island, rock pool.
- Cyprinotus inconstans* Furtos, 1936a. USNM 67963, Holotype, A+S. USNM 67964, 6 Paratypes, ALC, Mexico: Piste.
- Cyprinotus putei* Furtos, 1936a. USNM 67965, Holotype, A+S. USNM 67966, Paratype, A+S. USNM 67967, 3 Paratypes, ALC, Mexico: Yucatan, Progreso, pool.
- Cyprinotus unispinifer* Furtos, 1936a. USNM 67969, Paratype, A+S. USNM 67970, Paratype, ALC, Mexico: Campeche, Champoton, Yalic Aguada.
- Cypris (Cypricerus) splendida* Furtos, 1933. USNM 67883, 2 Syntypes, SLI, United States: Ohio, Chardon.
- Cypris (Cypricerus) tincta* Furtos, 1933. USNM 67884, 8 Syntypes, A+S, United States: Ohio, North Bass Island, Fischer's Marsh.
- Cypris (Cyprinotus) fluviatilis* Furtos, 1933. USNM 67888, 7 Syntypes, A+S, United States: Ohio, Toledo, Tontogany Creek.
- Cypris (Cyprinotus) glauca* Furtos, 1933. USNM, 67889, 2 Syntypes, SLI, United States: Ohio, Put-in-Bay, Gibraltar Island. USNM 67907, Syntype, SLI, United States: Ohio, Lake Erie, Middle Bass Island. USNM 67939, 20 Syntypes, ALC. USNM 112271, Syntype, SLI, United States: Ohio, Lake Erie, off Middle Bass Island.
- Cypris (Eucypris) fuscata* (Jurine, 1820) var. *gigantica* Furtos, 1933. USNM 67928, 9 Syntypes, ALC, United States: Ohio, North of Chagrin. USNM 67942, 5 Syntypes, ALC, United States: Ohio, North of Centersburg.
- Cypris (Eucypris) hystrix* Furtos, 1933. USNM 67890, Syntype, SLI, United States: Ohio, Columbus.
- Cypris (Eucypris) rava* Furtos, 1933. USNM

- 67891, Syntype, A+S, United States: Ohio, Newark, Cold Spring Run.
- Eucypris arcadiae* Furtos, 1936b. USNM 71383, Holotype, A+S. USNM 71384, 2 Paratypes, ALC, United States: Florida, 3 miles west of Arcadia.
- Eucypris cisternina* Furtos, 1936a. USNM 67971, Holotype, ALC, (Carapace only). USNM 67972, 6 Paratypes, ALC, Mexico: Campeche, Champoton.
- Eucypris serratomarginata* Furtos, 1936a. USNM 67973, Holotype, A+S, Mexico: Yucatan, Valladolid, Xix Cenote.
- Herpetocypris meridana* Furtos, 1936a. USNM 67974, Holotype, A+S. USNM 67975, Paratype, Mexico: Yucatan, Halal Aguada near Merida.
- Limnocythere ornata* Furtos, 1933. USNM 67892, 3 Syntypes, A+S. United States: Ohio, Chippewa Lake.
- Metacypris americana* Furtos, 1936a. USNM 67976, Holotype, A+S, Mexico: Yucatan, Merida, Xlaka Cenote.
- Physocypris exquisita* Furtos, 1936b. USNM 71389, Holotype, A+S. USNM 71390, Paratype, ALC, United States: Florida, Seminole City, 3 miles east of Indian Village.
- Stenocypris longicomosa* Furtos, 1933. USNM 67936, 3 Syntypes, ALC, United States, Ohio, Chippewa Lake.
- Strandesia intrepida* Furtos, 1936. USNM 67980, Holotype, A+S. USNM 67981, Paratype, A+S. USNM 67982, Paratype, ALC, Mexico: Yucatan, Halal Aguada near Merida.

Acknowledgments

I am grateful to Dr. Louis S. Kornicker for suggesting this project and providing

much helpful advice, to Drs. I. G. Sohn, Thomas E. Bowman, and Louis S. Kornicker for reviewing the manuscript, and to Patricia Nutter for providing assistance in obtaining computerized data.

Literature Cited

- Furtos, Norma C. 1933. The Ostracoda of Ohio.—Ohio State University Bulletin 37(14):413–524, plates 1–16. Ohio Biological Survey Bulletin 29 5(6).
- . 1934 [1935]. Two new species of *Cypretta* (Ostracoda) from the Marquesas Islands and Florida with notes on the distribution of the genus. Pacific Entomological Survey Publication 7, article 21:279–286, figs. 1–2 (issued May 16, 1934). Included in 1935 compilation: Marquesan Insects—II.—Bernice P. Bishop Museum Bulletin 114:279–286, figs. 1–2.
- . 1935. Freshwater Ostracoda from Massachusetts.—Journal of the Washington Academy of Sciences 25(12):530–544, figs. 1–6.
- . 1936a. X. On the Ostracoda from the cenotes of Yucatan and vicinity. In A. S. Pearse, E. P. Creaser, and F. G. Hall, eds. The cenotes of Yucatan, a zoological and hydrographic survey.—Carnegie Institute of Washington, Publication 457:89–115, figs. 1–127.
- . 1936b. Fresh-water Ostracoda from Florida and N. Carolina.—American Midland Naturalist 17(2):491–522, figs. 1–15.
- . 1938. A new species of *Cypridopsis* from Yucatan. In A. S. Pearse, ed., Fauna of the caves of Yucatan.—Carnegie Institute of Washington Publication 491:155–157. 1 figure.
- Tressler, Willis L. 1959. Chapter 28, Ostracoda. Pp. 657–734 in W. T. Edmonson, ed., Fresh-water biology, second edition, ix + 1248 pp. John Wiley and Sons, New York and London.

Department of Invertebrate Zoology, National Museum of Natural History, Division of Crustacea, NHB Stop 163, Smithsonian Institution, Washington, D.C. 20560.